

We claim:

1. A method of synchronizing broadcast content with dynamic network content at a network address, the method comprising:

extracting an identifier embedded in broadcast content;

5 using the identifier to identify corresponding network content; and

posting the corresponding network content on a network device located at the network address, the network device being responsive to requests sent to the network address to provide the network content over a network; wherein the broadcast content is synchronized with the corresponding network content.

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2. The method of claim 1 wherein the broadcast content comprises a video program, and the identifier is embedded in the video program.

15 3. The method of claim 2 wherein the identifier is embedded in a video track of the video program with a video watermark that modifies frames of video data to encode the identifier in the video frames in a substantially imperceptible manner.

20 4. The method of claim 2 wherein the identifier is embedded in an audio track of the video program with an audio watermark that modifies an audio signal to encode the identifier in the audio signal in a substantially imperceptible manner.

5. The method of claim 1 wherein the identifier triggers automatic posting of the corresponding network content.

25 6. The method of claim 1 wherein the dynamic network content comprises sets of HTML content, each set corresponding to a particular item, each set being prepared prior to broadcast of programs relating to the particular items.

7. The method of claim 6 wherein the particular items comprise products or services, and the programs comprise shopping programs that are broadcast to sell the products or services.

5 8. The method of claim 6 wherein the broadcast of the programs are live broadcasts, and the identifiers are embedded in the live broadcasts to synchronize the live broadcasts with dynamic HTML content accessible at the network address.

9. The method of claim 1 wherein the broadcast content comprises a radio
10 broadcast.

10. The method of claim 9 wherein the broadcast content comprises a satellite radio broadcast.

15 11. The method of claim 1 wherein the identifiers enable synchronizing of dynamic network content accessed by users at a single URL with broadcast content, and also provide a link to network information about the broadcast content.

12. The method of claim 11 wherein the link is used to return content relating to
20 the broadcast to a user's device in response to a request from the user.

13. The method of claim 12 wherein the content returned to the user's device enables the user to conduct an electronic transaction relating to the program.

25 14. The method of claim 13 wherein the electronic transaction comprises an electronic order to purchase an item that is advertised in the program.

15. The method of claim 12 wherein the request from the user is generated in part based on extracting the identifier from the broadcast content.

16. The method of claim 15 wherein the extracting of the identifier used to generate the request is performed on the user's device.

5 17. The method of claim 16 wherein the user's device is a cell phone.

18. The method of claim 12 wherein the user's device includes a process for extracting identifiers embedded in broadcast content received on the user's device.

10 19. The method of claim 18 wherein the process for extracting identifiers comprises a digital watermark decoding process for extracting digital data that is substantially imperceptibly embedded in audio or video signals of broadcast programs.

15 20. The method of claim 12 wherein the user's device provides information about the user's device to enable information returned to the user to be customized to the user's device.

20 21. The method of claim 12 wherein the user's device provides information about the user to enable information returned to the user to be customized to the user.

22. The method of claim 21 wherein the information about the user provides an account number to facilitate electronic transactions on the device relating to the broadcast content.

25 23. The method of claim 1 wherein the identifier is used to notify a network operator that network content is not properly synchronized with the broadcast content.

24. A system for synchronizing web content accessed at a URL with broadcast content, the system comprising:

a database associating web content identifiers with corresponding web content relating to items that are subjects of broadcast programming;

an embedder for embedding the web content identifiers into broadcast programs, the embedder using the items that are subjects of the broadcast programming to select
5 web content identifiers for embedding into the broadcast programming; wherein the web content identifiers are extractable at a web site control to ensure that the corresponding web content is posted and accessible via the URL when corresponding broadcast programming is broadcast.

10 25. The system of claim 24 wherein the embedder comprises a digital watermark embedder for modifying audio or video signals of a broadcast program to encode the identifiers in a substantially imperceptible manner in the audio or video signals.

15 26. The system of claim 24 wherein the identifiers are decodable by consumer devices to link the consumer devices to network content relating to the broadcast programming.

20 27. The system of claim 24 including an input device operable to receive an item name of an item that is the subject of a live broadcast from an operator, and in response, looking up a corresponding web content identifier associated with the item name.

28. The system of claim 24 including an input device operable to receive a web content identifier for an item that is the subject of a live broadcast from an operator.

25 29. The system of claim 24 wherein the broadcast comprises live programming and pre-recorded programming relating to an item, and the pre-recording programming is embedded with a web content identifier for the item prior to the live programming.